

Code No: **PT42053C****R13****Set No. 1****IV B.Tech II Semester Regular/Supplementary Examinations, April - 2018****MOBILE ADHOC & SENSOR NETWORKS****(Common to Computer Science and Engineering and Information Technology)****Time: 3 hours****Max. Marks: 70***Question paper consists of Part-A and Part-B**Answer ALL sub questions from Part-A**Answer any THREE questions from Part-B*

PART-A (22 Marks)

1. a) Explain the issues in designing ad hoc networks. [4]
- b) Define multi casting. [3]
- c) List the major functions performed by TCP. [4]
- d) Mention the advantages of WSNs. [4]
- e) Describe the sensor node architecture with appropriate figure. [4]
- f) Mention the security requirements in ad-hoc networks. [3]

PART-B (3x16 = 48 Marks)

2. a) Explain the applications of MANETs. [8]
- b) Discuss about position based routing algorithms. [8]
3. a) Explain the various categories of broadcasting protocols. [8]
- b) Explain about data-transmission oriented geocast routing protocols. [8]
4. a) Why TCP protocols used in wired network is not suitable for wireless networks? Compare the different TCP protocols over ad hoc networks. [8]
- b) Draw the TCP header? Explain its fields. [8]
5. a) Briefly explain the architecture of wireless sensor networks. [8]
- b) Explain challenges and design issues of WSNs. [8]
6. a) Explain about data centric routing and directed diffusion. [8]
- b) Differentiate ad hoc networks and sensor networks. Outline the features of WSN. [8]
7. a) Explain about intrusion tolerant routing in wireless sensor networks. [8]
- b) Brief the problems affecting secure Ad Hoc routing in sensor networks. [8]